

FG7R - FG7OR 0,6/1 kV

NON PROPAGANTI LA FIAMMA, NON PROPAGANTI L'INCENDIO, BASSISSIMA EMISSIONE DI FUMI, GAS TOSSICI E CORROSIVI, ZERO ALOGENI
FLAME RETARDANT, FIRE RETARDANT, VERY LOW EMISSION OF SMOKE, TOXIC AND CORROSIVE GASES, HALOGEN FREE



NON PROPAGANTE
LA FIAMMA
FLAME RETARDANT



NON PROPAGANTE
L'INCENDIO
FIRE RETARDANT
CEI EN 20-22 II

RIFERIMENTO NORMATIVO/STANDARD REFERENCE

Costruzione e requisiti/Construction and specifications	CEI 20-13 IEC 60502-1 CEI UNEL 35375 CEI UNEL 35377
Propagazione fiamma/Flame propagation	CEI EN 60332-1-2
Propagazione incendio/Fire propagation	CEI EN 20-22 II
Emissione gas corrosivi e alogenidrici/Corrosive gases emission or halogens	CEI EN 50267-2-1
Emissione di fumi (trasmissione)/Smoke density (transmittance)	CEI EN 61034-2
Direttiva Bassa Tensione/Low Voltage Directive	2006/95/CE
Direttiva RoHS/RoHS Directive	2011/65/CE



Le immagini sono puramente illustrative e coperte da copyright ©

DESCRIZIONE:

Cavo per energia, isolato con gomma etilpropilenica ad alto modulo di qualità G7, sotto guaina di PVC, non propagante l'incendio e a ridotta emissione di gas corrosivi.

CARATTERISTICHE FUNZIONALI:

- Tensione nominale U_0/U : 0,6/1 kV
- Temperatura massima di esercizio: 90°C
- Temperatura minima di esercizio: -15°C (in assenza di sollecitazioni meccaniche)
- Temperatura minima di posa: 0°C
- Temperatura massima di corto circuito: 250°C
- Sforzo massimo di trazione (consigliato): 50 N/mm² di sezione del rame.
- Raggio minimo di curvatura: 4 volte il diametro del cavo.

CONDIZIONI DI IMPIEGO:

Adatto per l'alimentazione e trasporto di comandi e/o segnali nell'industria, nei cantieri, nell'edilizia residenziale.

Per installazione fissa all'interno e all'esterno. Installazione su murature e strutture metalliche, su passerelle, tubazioni, canalette e sistemi similari.

Ammissa la posa interrata, anche se non protetta. (CEI 20-67)

DESCRIPTION:

Power cable insulated with high quality ethyl-propylene rubber, G7 quality, with PVC sheath, not propagating fire with reduced corrosive gas emission.

FUNCTIONAL CHARACTERISTICS

- Maximum voltage U_m : 0,6/1 kV
- Maximum operating temperature: 90°C
- Minimum operating temperature: -15°C (without mechanical stress)
- Minimum installation temperature: 0°C
- Maximum short circuit temperature: 250°C
- Maximum tensile stress (recommended): 50 N/mm² of the cross-section of the copper.
- Minimum bending radius: 4 x cable diameter.

USE AND INSTALLATION

Suitable for the supply and transport of commands and/or signals in industry, construction sites, in housing. For use outdoor and indoor. For installation in brickwork, metal structures, gangways, pipes, ducts or similar closed systems.

Allowed for underground laying also unprotected. (CEI 20-67)

FG7R - FG7OR 0,6/1 kV

COSTRUZIONE DEL CAVO / CABLE CONSTRUCTION



CONDUTTORE

Materiale:
Rame rosso, formazione flessibile, classe 5

CONDUCTOR

Material: Copper flexible wire, class 5



ISOLAMENTO

Materiale: Gomma, qualità G7

INSULATION

Material: Rubber compound, G7 quality



CORDATURA TOTALE

Tipo: i conduttori isolati sono cordati insieme

TOTAL CABLING

Type: The cores are stranded together in concentric lay



RIEMPITIVO

Materiale: termoplastico, penetrante tra le anime (solo nei cavi multipolari)

FILLER

Material: Thermoplastic, penetrating between the cores (only in multi-core cables)



GUAINA

Materiale: PVC, qualità Rz
Colore: Grigio

SHEATH

Material: PVC, Rz quality
Colour: Grey

Unipolari/Single core

Formazione Size	Ø indicativo conduttore	Spessore medio isolante	Spessore medio guaina	Ø esterno massimo	Peso indicativo cavo	Resistenza elettrica max a	Portata di corrente					
	Approx. conduct. Ø	Average insulation thickness	Average sheath thickness	Max outer Ø	Indicative cable weight	Max electrical resistance at 20° C	Current rating					
n° x mm ²	mm	mm	mm	mm	kg/km	Ω/km	in aria a in air at	in tubo in aria a in pipe in air at	interrato a Underground at 20° C	in tubo interrato a In underground pipe at 20° C		
							30° C	30° C	K=1	K=1,5	K=1	K=1,5
1 x 1,5	1,5	0,7	1,4	6,7	50,0	13,3	24,0	20,0	26,0	24,0	23,0	21,0
1 x 2,5	2,0	0,7	1,4	7,2	63,0	7,98	33,0	28,0	34,0	31,0	29,0	27,0
1 x 4	2,5	0,7	1,4	7,8	80,0	4,95	45,0	37,0	43,0	40,0	38,0	35,0
1 x 6	3,0	0,7	1,4	8,4	110,0	3,30	58,0	48,0	55,0	51,0	48,0	44,0
1 x 10	4,0	0,7	1,4	9,4	152,0	1,91	80,0	66,0	73,0	68,0	64,0	59,0
1 x 16	5,0	0,7	1,4	10,4	215,0	1,21	107,0	88,0	96,0	89,0	83,0	77,0
1 x 25	6,2	0,9	1,4	12,2	320,0	0,798	141,0	117,0	124,0	115,0	108,0	100,0
1 x 35	7,4	0,9	1,4	13,6	400,0	0,554	176,0	144,0	150,0	139,0	131,0	121,0
1 x 50	8,9	1,0	1,4	15,4	550,0	0,386	216,0	175,0	186,0	173,0	162,0	150,0
1 x 70	10,5	1,1	1,4	17,3	750,0	0,272	279,0	222,0	229,0	212,0	199,0	184,0
1 x 95	12,2	1,1	1,5	19,4	980,0	0,206	342,0	269,0	270,0	250,0	234,0	217,0
1 x 120	13,8	1,2	1,5	21,4	1235,0	0,161	400,0	312,0	312,0	289,0	271,0	251,0
1 x 150	15,4	1,4	1,6	23,8	1545,0	0,129	464,0	355,0	356,0	330,0	310,0	287,0
1 x 185	16,9	1,6	1,6	26,0	1865,0	0,106	533,0	417,0	401,0	371,0	349,0	323,0
1 x 240	19,5	1,7	1,7	29,2	2410,0	0,0801	634,0	490,0	471,0	436,0	409,0	379,0
1 x 300	23,0	1,8	1,8	32,0	3000,0	0,0641	736,0	-	533,0	493,0	463,0	429,0
1 x 400	26,5	2,0	1,9	36,5	4005,0	0,0486	886,0	-	621,0	575,0	540,0	500,0

N.B. I valori di portata di corrente sono riferiti a:
- n°3 conduttori attivi
- profondità di posa 0,8 m per i cavi interrati

Permissible current rating values are according to:
- three-phase circuit
- laying depth of 0,8 m for buried cables

N.B. K=1: resistività termica del terreno 1,0 K.m/W
K=1,5: resistività termica del terreno 1,5 K.m/W
N.B. K=1: thermal resistivity 1,0 K.m/W
K=1,5: thermal resistivity 1,5 K.m/W

FG7R - FG7OR 0,6/1 kV

Bipolari/2 cores

Formazione Size	Ø indicativo conduttore Approx. conduct. Ø	Spessore medio isolante Average insulation thickness	Spessore medio guaina Average sheath thickness	Ø esterno massimo Max outer Ø	Peso indicativo cavo Indicative cable weight	Resistenza elettrica max a Max electrical resistance at 20° C	Portata di corrente Current rating					
							A		A			
n° x mm ²	mm	mm	mm	mm	kg/km	Ω/km	in aria a	in tubo in aria a	interrato a		in tubo interrato a	
							in air at	in pipe in air at	Underground at		In underground pipe at	
							30° C	30°C	20° C		20° C	
									K=1	K=1,5	K=1	K=1,5
2 x 1,5	1,5	0,7	1,8	12,0	145,0	13,30	26,0	22,0	28,0	26,0	25,0	23,0
2 x 2,5	2,0	0,7	1,8	13,0	185,0	7,98	36,0	30,0	37,0	35,0	32,0	30,0
2 x 4	2,5	0,7	1,8	14,2	235,0	4,95	49,0	40,0	48,0	45,0	41,0	39,0
2 x 6	3,0	0,7	1,8	15,4	290,0	3,30	63,0	51,0	60,0	56,0	52,0	49,0
2 x 10	4,0	0,7	1,8	17,3	420,0	1,91	86,0	69,0	80,0	76,0	70,0	66,0
2 x 16	5,0	0,7	1,8	19,4	600,0	1,21	115,0	91,0	105,0	99,0	91,0	86,0
2 x 25	6,2	0,9	1,8	23,0	875,0	0,798	149,0	119,0	135,0	128,0	118,0	111,0
2 x 35	7,4	0,9	1,8	25,7	1135,0	0,554	185,0	140,0	166,0	156,0	144,0	136,0
2 x 50	8,9	1,0	1,8	29,3	1525,0	0,386	225,0	175,0	205,0	193,0	178,0	168,0

N.B. I valori di portata di corrente sono riferiti a:
 - n°3 conduttori attivi
 - profondità di posa 0,8 m per i cavi interrati

Permissible current rating values are according to:
 - three-phase circuit
 - laying depth of 0,8 m for buried cables

N.B. K=1: resistività termica del terreno 1,0 K.m/W
 K=1,5: resistività termica del terreno 1,5 K.m/W
 N.B. K=1: thermal resistivity 1,0 K.m/W
 K=1,5: thermal resistivity 1,5 K.m/W

Tripolari/3 cores

3 x 1,5	1,5	0,7	1,8	12,5	163,0	13,30	23,0	19,0	23,0	22,0	20,0	19,0
3 x 2,5	2,0	0,7	1,8	13,6	215,0	7,98	32,0	26,0	30,0	29,0	27,0	25,0
3 x 4	2,5	0,7	1,8	14,9	275,0	4,95	42,0	35,0	39,0	37,0	34,0	32,0
3 x 6	3,0	0,7	1,8	16,2	350,0	3,30	54,0	44,0	50,0	47,0	43,0	41,0
3 x 10	4,0	0,7	1,8	18,2	530,0	1,91	75,0	60,0	67,0	63,0	58,0	55,0
3 x 16	5,0	0,7	1,8	20,6	730,0	1,21	100,0	80,0	88,0	83,0	76,0	72,0
3 x 25	6,2	0,9	1,8	24,5	1.085,0	0,798	127,0	105,0	113,0	107,0	99,0	93,0
3 x 35	7,4	0,9	1,8	27,3	1.425,0	0,554	158,0	128,0	139,0	131,0	121,0	114,0
3 x 50	8,9	1,0	1,8	31,2	1.935,0	0,386	192,0	154,0	172,0	162,0	149,0	141,0
3 x 70	10,5	1,1	1,9	35,6	2.700,0	0,272	246,0	194,0	212,0	200,0	184,0	174,0
3 x 95	12,2	1,1	2,0	40,0	3.450,0	0,206	298,0	233,0	251,0	237,0	218,0	206,0
3 x 120	13,8	1,2	2,1	44,4	4.375,0	0,161	346,0	268,0	290,0	274,0	252,0	238,0
3 x 150	15,4	1,4	2,3	49,5	5.505,0	0,129	399,0	300,0	332,0	313,0	288,0	272,0
3 x 185	16,9	1,6	2,4	55,2	6.630,0	0,106	456,0	340,0	373,0	352,0	324,0	306,0
3 x 240	19,5	1,7	2,6	61,9	8.625,0	0,0801	538,0	398,0	439,0	414,0	382,0	360,0
3 x 300	22,0	1,8	2,8	68,0	10.595,0	0,0641	621,0	-	-	-	-	-

N.B. I valori di portata di corrente sono riferiti a: n°3 conduttori attivi - Profondità di
 posa 0,8 m per i cavi interrati
 N.B. Current rating values are referred to: n° 3 loaded conductors - Installation depth
 for underground cables 0,8 m

N.B. K=1: resistività termica del terreno 1,0 K.m/W
 K=1,5: resistività termica del terreno 1,5 K.m/W
 N.B. K=1: thermal resistivity 1,0 K.m/W
 K=1,5: thermal resistivity 1,5 K.m/W

FG7R - FG7OR 0,6/1 kV

Quadripolari/4 cores

Formazione	Ø indicativo conduttore	Spessore medio isolante	Spessore medio guaina	Ø esterno massimo	Peso indicativo cavo	Resistenza elettrica max a	Portata di corrente					
	Size	Approx. conduct. Ø	Average insulation thickness	Average sheath thickness	Max outer Ø	Indicative cable weight	Max electrical resistance at 20° C	Current rating				
							in aria a		interrato a		in tubo interrato a	
							in air at	in pipe in air at	Underground at 20° C		In underground pipe at 20° C	
n° x mm ²	mm	mm	mm	mm	kg/km	Ω/km	30° C	30° C	K=1	K=1,5	K=1	K=1,5
4 x 1,5	1,5	0,7	1,8	13,4	191,0	13,30	23,0	19,0	23,0	22,0	20,0	19,0
4 x 2,5	2,0	0,7	1,8	14,6	260,0	7,98	32,0	26,0	30,0	29,0	27,0	25,0
4 x 4	2,5	0,7	1,8	16,0	335,0	4,95	42,0	35,0	39,0	37,0	34,0	32,0
4 x 6	3,0	0,7	1,8	17,5	440,0	3,30	54,0	44,0	50,0	47,0	43,0	41,0
4 x 10	4,0	0,7	1,8	19,8	655,0	1,91	75,0	60,0	67,0	63,0	58,0	55,0
4 x 16	5,0	0,7	1,8	22,4	920,0	1,21	100,0	80,0	88,0	83,0	76,0	72,0
4 x 25	6,2	0,9	1,8	26,8	1.370,0	0,780	127,0	105,0	113,0	107,0	99,0	93,0
3 x 35 + 25	7,4/6,2	0,9/0,9	1,8	29,2	1.705,0	0,554/0,780	158,0	128,0	139,0	131,0	121,0	114,0
3 x 50 + 25	8,9/6,2	1,0/0,9	1,8	32,4	2.185,0	0,386/0,780	192,0	154,0	172,0	162,0	149,0	141,0
3 x 70 + 35	10,5/7,4	1,1/1,0	1,9	37,0	3.005,0	0,272/0,554	246,0	194,0	212,0	200,0	184,0	174,0
3 x 95 + 50	12,2/8,9	1,1/1,0	2,1	42,0	3.905,0	0,206/0,386	298,0	233,0	251,0	237,0	218,0	206,0
3 x 120 + 70	13,8/10,5	1,2/1,1	2,2	46,9	5.050,0	0,161/0,272	346,0	268,0	290,0	274,0	252,0	238,0
3 x 150 + 95	15,4/12,2	1,4/1,1	2,4	52,5	6.370,0	0,129/0,206	399,0	300,0	332,0	313,0	288,0	272,0
3 x 185 + 95	16,9/12,2	1,6/1,1	2,5	57,3	7.425,0	0,106/0,206	456,0	340,0	373,0	352,0	324,0	306,0
3 x 240 + 150	19,5/15,4	1,7/1,4	2,7	65,5	9.995,0	0,0801/0,129	538,0	398,0	439,0	414,0	382,0	360,0
3 x 300 + 150	22,0/15,4	1,8/1,4	2,9	70,8	12.025,0	0,0641/0,129	621,0	455,0	-	-	-	-

Pentapolari/5 cores

5G1,5	1,5	0,7	1,8	14,4	225,0	13,30	23,0	19,0	23,0	22,0	20,0	19,0
5G2,5	2,0	0,7	1,8	15,6	305,0	7,98	32,0	26,0	30,0	29,0	27,0	25,0
5G4	2,5	0,7	1,8	17,3	400,0	4,95	42,0	35,0	39,0	37,0	34,0	32,0
5G6	3,0	0,7	1,8	18,9	530,0	3,30	54,0	44,0	50,0	47,0	43,0	41,0
5G10	4,0	0,7	1,8	21,5	765,0	1,91	75,0	60,0	67,0	63,0	58,0	55,0
5G16	5,0	0,7	1,8	24,4	1.110,0	1,21	100,0	80,0	88,0	83,0	76,0	72,0
5G25	6,2	0,9	1,8	29,3	1.660,0	0,780	127,0	105,0	113,0	107,0	99,0	93,0
5G35	7,4	0,9	1,8	32,8	2.200,0	0,554	158,0	128,0	139,0	131,0	121,0	114,0
5G50	8,9	1,0	2,0	38,2	3.010,0	0,386	192,0	154,0	172,0	162,0	149,0	141,0

N.B. I valori di portata di corrente sono riferiti a: n°3 conduttori attivi - Profondità di posa 0,8 m per i cavi interrati

N.B. Current rating values are referred to: n° 3 loaded conductors - Installation depth for underground cables 0,8 m

N.B. K=1: resistività termica del terreno 1,0 K.m/W - K=1,5: resistività termica del terreno 1,5 K.m/W

N.B. K=1: thermal resistivity 1,0 K.m/W - K=1,5: thermal resistivity 1,5 K.m/W

Multipli, Segnalamento e comando/Multi-cores, Signal and control

5G1,5	1,5	0,7	1,8	14,4	225,0	13,30	16,0	14,0	-	-	26,0	23,0
7G1,5	1,5	0,7	1,8	15,4	305,0	13,30	13,0	11,5	-	-	18,5	16,0
10G1,5	1,5	0,7	1,8	18,7	395,0	13,40	13,0	11,5	-	-	18,5	16,0
12G1,5	1,5	0,7	1,8	19,3	440,0	13,40	11,0	9,5	-	-	14,5	12,5
16G1,5	1,5	0,7	1,8	21,1	545,0	13,40	11,0	9,5	-	-	14,5	12,5
19G1,5	1,5	0,7	1,8	22,1	620,0	13,40	9,0	8,0	-	-	13,0	11,5
24G1,5	1,5	0,7	1,8	25,4	765,0	13,50	9,0	8,0	-	-	13,0	11,5
7G2,5	2,0	0,7	1,8	16,8	420,0	7,98	17,5	15,5	-	-	24,0	21,0
10G2,5	2,0	0,7	1,8	20,6	525,0	8,06	17,5	15,5	-	-	24,0	21,0
12G2,5	2,0	0,7	1,8	21,3	595,0	8,06	13,5	12,0	-	-	20,0	17,5
16G2,5	2,0	0,7	1,8	23,3	750,0	8,06	13,5	12,0	-	-	20,0	17,5
19G2,5	2,0	0,7	1,8	24,5	845,0	8,06	12,0	10,5	-	-	16,0	14,0
24G2,5	2,0	0,7	1,8	28,3	1.040,0	8,10	12,0	10,5	-	-	16,0	14,0

*Disponibile anche senza conduttore giallo/verde - N.B. I valori di portata di corrente sono riferiti a: tutti i conduttori attivi (eccetto il conduttore giallo/verde) - Profondità di posa 0,8 m per i cavi interrati

*Available without yellow/green conductor - N.B. Current rating values are referred to: All loaded conductors - Installation depth for underground cables 0,8 m

N.B. K=1: resistività termica del terreno 1,0 K.m/W - K=1,5: resistività termica del terreno 1,5 K.m/W

N.B. K=1: thermal resistivity 1,0 K.m/W - K=1,5: thermal resistivity 1,5 K.m/W

